

U.S. Pat. Appl. 09/926,320

**REMARKS**

Prior to examination of new claims 18 and 19, the examiner is urged to consider the following.

In the context of the present invention, it is not stack-based instructions but operations involved in issued stack-based instructions that are to be executed out of order that is of concern. A stack-based instruction may comprise stack manipulations and an operation. For example, a stack-based ADD instruction implies "pop two words from the operand stack, add them, and push the result onto the stack." Operations, such as arithmetic and logical operations are executed out of order. The important thing to keep in mind is that a data buffer is provided between the register file ("consolidated register file" is rather redundant so instead "register file" has been used in the new claims) combined with pointer stacks and the data cache in order to streamline stack spills and fills. Please note that the operand stack is to be located at the top of the word stack (see pg 6, lines 7 - 14 in the specification).

New claim 18 relates to spill/fill operations for the word stack except for operand-stack growth/shrink (see pg. 18, lines 21 to pg 19, line 2). New claim 19 relates to spill/fill operations for the entire word stack including the operand stack (see pg. 10, lines 2 - 9, pg 19, lines 3 - 17). That is, claim 19 is identical with claim 18 except that the data buffer can hold lower operand-stack elements.

To assist the examiner in finding the support for the specific elements recited in new claim 18, the following annotation is submitted:

the register file - see pg 2, line 8 and 9 of the specification;

the advanced pointer stack - see pg. 8, line 22 - pg. 9 line 18;

U.S. Pat. Appl. 09/926,320

the completed pointer stack - see pg. 8, line 23 - pg. 9 line 9 and line 19 - pg. 10, line 1;

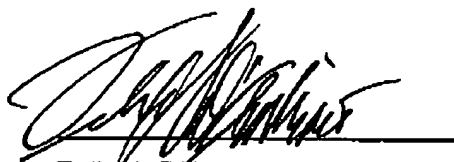
the data buffer - see pg 17, lines 7 - 11;

the data cache - see pg. 2, line 8; and

the wherein clause - see pg. 18, line 21 - pg. 19, line 2 and lines 18 - 20.

Allowance of new claims 18 and 19 are respectfully requested.

Respectfully submitted,



Felix J. D'Ambrosio

Reg. No. 25,721

May 31, 2005

BACON & THOMAS, PLLC  
625 Slaters Lane, 4<sup>th</sup> Floor  
Alexandria, VA 22314 - 1176  
(703) 683-0500